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THE ARCHITECT

VOLUME X · NUMBER 1
JULY · 1915

THE GRAND PRIZE

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ONE GOLD MEDAL

ARE THE AWARDS OF THE

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THE ARCHITECT

VOLUME X. SAN FRANCISCO, CALIFORNIA, JULY, 1915 NUMBER 1.

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Editorial

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Landscape Expert Describes Work

The July issue of *The Architect* completes a series of four editions, featuring the two California Expositions. This number will undoubtedly take its place as one of the most attractive in the set. It features the landscape of the Panama-Pacific International Exposition, photographs of which were selected by Mr. Donald McLaren, assistant chief of the Department of Landscape Gardening. Mr. McLaren has also contributed an article on the subject of landscape, which is certain to have value as a work of reference.

The study of landscape and the laying out of gardens is becoming more and more a subject of increased interest to the architect, who will appreciate the article presented by Mr. McLaren, as coming from a real authority on gardens. Most of our readers are, doubtless, familiar with the fact that the work of preparation for the gardens of the Panama-Pacific International Exposition, and the actual amount of area involved and material used, easily exceeds many times over the largest single project of similar nature that has ever been developed; and when one considers the remarkably short space of time required for the completion of same, the work takes on even greater importance.

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Increased Interest in City Planning

A recent issue of the *Journal of the American Institute of Architects* features the city-planning idea, describing and illustrating in most interesting manner, city-planning in several of the large cities of this country and abroad.

Philadelphia is one of the foremost American cities in the scope and character of such projects. A revision of the present system of thoroughfares is under way on an extensive scale in Philadelphia. A primary net of main traffic thoroughfares of 88, 108 or 148 feet has been laid out to collect and carry the heavy general traffic. Photographs of the existing improvements of that city compared with views taken before the work commenced, surprise one at the apparent ease with which such improvements can be developed, and of the unmistakable increased property values resulting thereto.

The city-planning idea has taken a great hold on public-spirited officials and citizens of this country, and it is certain that the scope of this kind of work will be greatly enlarged within the coming few years. Not only will it embrace the laying out of new communities, but one of its chief causes will be for the beautification of our older cities; the abolishment of public nuisances of long standing and the development of locations best suited by nature for certain environment and surroundings.

The streets of too many of our cities are severe hardships, and with a little thought and work along city-planning lines, a tremendous amount of good can be accomplished.

City planning is not all work for the engineer, although the members of the latter profession have been largely concerned in the development of the idea during recent years. Considerable of the actual work must fall to the lot of the architect, and it is especially important that greater publicity be given to various methods of city planning.

It appears that one of the greatest drawbacks in the development of the idea in this country has been the vacillation of the courts in determining compensation for private owners deprived of property rights. It will be impossible for such a state of affairs to continue, and it is apparent that a more broad-minded policy has been agreed upon.

City planning has ceased to be a fad, and that it can no longer be considered merely the dream of those with esthetic ideals, is apparent in the action of legislators and other officials.

Recently Governor Johnson of California signed a bill, which provides for the establishment and maintenance of city planning commissions in this State. These boards will work in conjunction with the municipal authorities in an advisory capacity. It is to be hoped that men will be selected who will enter this work for the practical ability they possess; and this seems assured inasmuch as members of these boards are to act without pay. In intelligent planning lies the hope for the permanence of property values in any city. This fact is recognized by real estate men, who are urging that tracts of land no longer be laid out on the "gridiron" plan. This plan will give the most lots, but will not bring in the most money.

With the detrimental and objectionable features eliminated, and in consequence involving less hardship on behalf of city-planning committees and commissions, there will be a greater application of this form of civic improvement, with possibilities that will astonish. The work will provide for an increased number of parks, public buildings, beautiful

promenades, and other landscape features, besides solving traffic and other problems of physical character. But there must be less antagonism to the plan on the part of private interests.

Kansas City has been able to condemn the grounds for its great park and boulevard system because the people have been solidly behind the projects as they come up. It has been said that the people of Kansas City are better citizens for the beauty they create in their midst. When these people feel the need of new traffic arteries or parks, they proceed to build them, regardless of cost.

Future subdividers, having plats of irregular topography, will not fail to take advantage of unusual chances offered for the creation of winding streets and lots with a variety of shape and contour.

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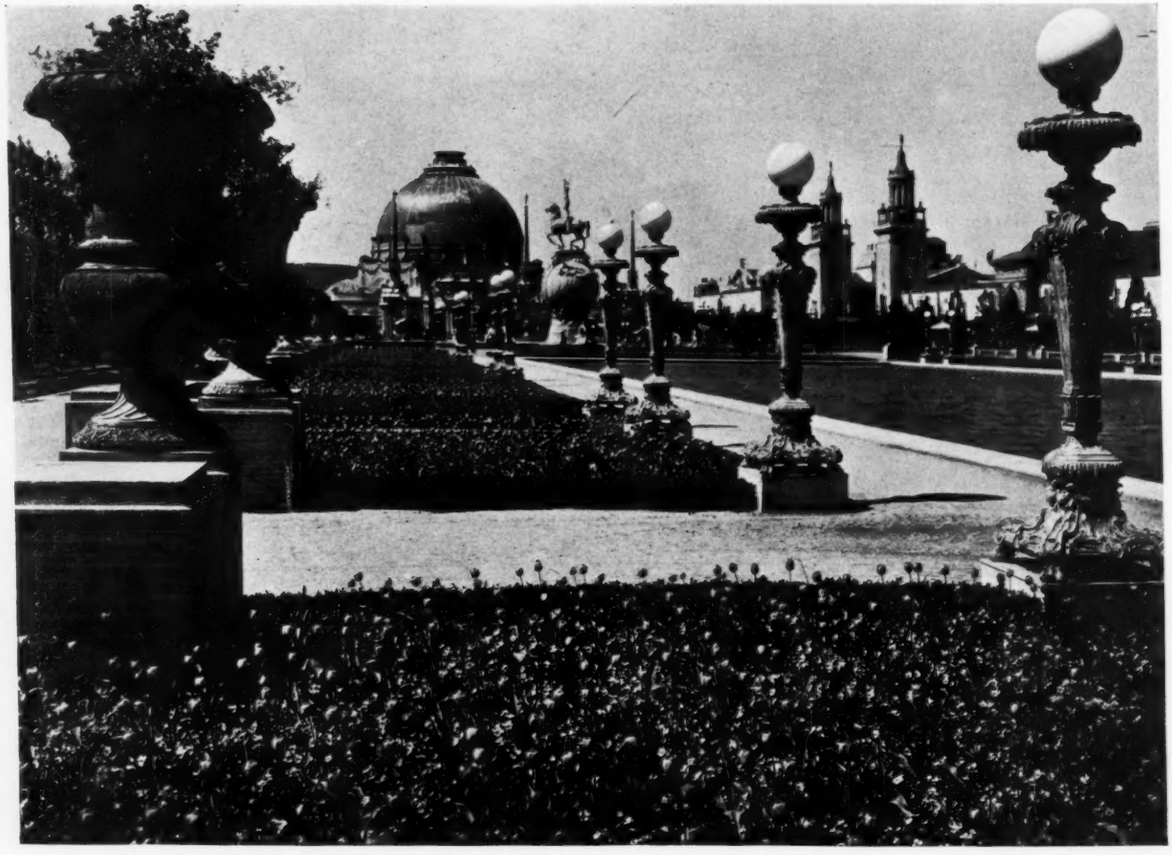
Announcement has been made by a special committee of the American Institute of Architects, formed for the purpose of making arrangements for a meeting in San Francisco of the executive committee, that matters have progressed most satisfactorily, and that the trip will be made in September.

The committee has arranged for two special cars and anticipates with confidence the filling of a special train.

While in San Francisco there will undoubtedly be some sort of an informal convention of the members of the Institute, during which papers will be read and general matters discussed.

Present indications are to the effect that the chapters in the territory through which the excursion will pass, will plan to entertain the visitors on an extensive scale, and it appears as though the excursion and meeting in San Francisco will prove to be one of the most memorable events in the history of the Institute.



View of portion of South Gardens, showing use made of Tulips (Bonton d'Or) and Yellow Pansy carpet
Panama-Pacific International Exposition
John McLaren, Chief Landscape Gardening

Landscape Gardening at the Exposition

By DONALD McLAREN
ASSISTANT CHIEF OF THE DEPARTMENT OF LANDSCAPE GARDENING

The landscape work in connection with the adornment of the grounds of the Panama-Pacific International Exposition may be said to have commenced with the formation of the Architectural Commission in 1911, prior to which time Mr. John McLaren had been appointed by the directors of the Exposition as its landscape engineer.

At this time general plans covering the main exhibit section of the Exposition were formated and a general scheme of planting outlined, due consideration having been given to our climatic conditions and the aspects of the various courts and gardens which it was proposed to install.

In March of 1912 the work of collecting the tremendous number of trees and shrubs necessary to carry out such a comprehensive scheme was started by sending out competent men throughout all the bay counties and the cities of San Francisco, Oakland, Berkeley and Alameda, with a view to locating large specimen plants.

As soon as these had been located, and as they were, in most cases, donated by their owners, they were side-boxed preparatory to removing them to their permanent quarters.

In this connection it might be interesting to note how these large palms and plants of various descriptions were treated in order to move them successfully, as they have been done. The trees were first side-boxed and after the side roots had been cut, three inches of space was allowed between the balls of the trees and the sides of the boxes. This three inches of space was filled with good surface soil, which was well tamped in, in order to start side-root action, after which the plants were mulched and given good care with plenty of water for a period of from four to six months, when the tree was ready for moving to the Exposition grounds. Most of the boxes were from three to six feet square on the sides and two and a half to four feet in depth.

Following this in April of the same year a temporary nursery was established in Golden Gate Park, and in November of 1912 a permanent nursery was established at Tennessee Hollow in the Presidio Reservation, where six greenhouses, together with the necessary potting sheds, heating plant and a large lath house was established and the small plants moved from the temporary nursery in Golden Gate Park.

At this time it may be interesting to state that the eucalyptus and acacias which are seen adorning the grounds were only about twelve to eighteen inches in height and were growing in small flats, each of which contained approximately one hundred of each variety. These plants were placed in boxes and at the time they were set out, approximately two years afterwards, they had attained a height, in the case of the eucalyptus, of from twenty-five to thirty feet and the acacias of twelve to fifteen feet. The same treatment was given to the different varieties of hydrangeas, marguerites, fuschias, etc., so that it was assured at the time of the opening of the Exposition that fine specimens of all these varieties would be on hand for the permanent planting.

The first half of this year was also devoted to the preparation of planting plans and detailed estimates covering all the courts, gardens and buildings of the Exposition.

During the same year the various nurseries throughout the State and Coast were visited with a view to obtain all the necessary trees and shrubs which might be useful in the work, but it was not until June, 1913, that the work of moving the large plants to their permanent stations on the grounds was started. From then on and continuing throughout the summer and autumn approximately seven hundred large cypress and eucalyptus were moved from the Golden Gate Park and the Presidio to their permanent places on the Exposition grounds, these plants ranging in height from thirty to thirty-five feet.

The first work consisted of the formation of the four large groups in the South Gardens. Prior to this, however, the grounds around the Service Building were planted up, but this work, however, was formed of trees of a smaller size.

During the autumn of 1913 the majority of the large palms which were designed to form the Avenue of Palms were side-boxed. This avenue consisted of 350 palms formed by placing them twenty feet apart and spacing alternately Phoenix canariensis (California date palm) and Washingtonia robusta (California fan palm), the majority of which were shipped in from Niles during the spring and summer of 1914.

The first actual planting around the buildings was started in April of 1913 at Machinery Hall, and formed a portion of the Avenue of Progress, and from then on this work was continued until completion around the various buildings.

Owing to the various climatic conditions and aspects throughout the Exposition grounds abundant opportunity was presented to the landscape engineer to utilize a varied class of plants. Some of the situations were very exposed, while others provided abundant opportunity to use plants of a more tender nature. As the Exposition opened and closed in midwinter it was deemed necessary to use evergreen trees and plants throughout.

The Exposition being in California, it was naturally expected that a blaze of color would be maintained throughout the period of the Exposition. Our native wild flowers being all brilliant in color, it was decided to open with a blaze of yellow, so far as possible, to which end the tremendous areas of the South Gardens were planted with yellow pansies, daffodils and yellow tulips (Bouton d'Or), in which connection it might be interesting to note that in the South Gardens were planted two hundred thousand pansies, two hundred thousand daffodils and two hundred thousand tulips. These are followed by a planting of two hundred thousand pink begonias (Erfordii).

The Court of Flowers was made brilliant by the planting of 50,000 yellow pansies, a like number of red anemones (Anemone fulgens), and a like number of red tulips (Gesneriana spathulata major), to be succeeded by 50,000 red begonias (Crimson bedder).

It was designed in each case that a succession of flowers would be maintained until June, the idea being that in the case of the South Gardens the succession would be daffodils, followed by tulips; while in each case a continual show of yellow pansies would be maintained, with the pansies carrying through all the period in the form of a carpet.

In the Court of Abundance, while a continuous succession of color in the beds was maintained by the use of Viola cornuta as a bed, the first brilliant coloring being given by the use of hyacinths (Gertrude), followed by red tulips (Clara Butt), the main feature of the court consists of planting on the sides of 120 Italian cypress twenty feet in height, 240 Irish yews four to five feet in height and sixty orange trees, these orange trees approximating twelve to fourteen feet in height and ten feet in diameter.

Contrary to what might be generally supposed, these plants were brought from Cloverdale, were delivered in December of 1914, and were in full bearing at the opening of the Exposition. The plants had been side-boxed in the spring of 1914, were carefully cared for, well mulched and well watered throughout the summer and up to the time of their lifting. The plants were of such size that only two could be put on an ordinary flat car. The bunches of

fruit were of necessity very carefully tied up in all cases in order to insure their safe arrival at the Exposition grounds. These plants, it may be stated, have done remarkably well, and are at present in full blossom, their odor forming quite a feature of the court, especially during warm summer evenings.

Naturally in the treatment of such a tremendous acreage and with such varied conditions, abundant opportunity has been furnished both for formal and natural treatments.

A very fine example of the natural treatment was provided by the architect in connection with the planting up of the lagoon in front of the Fine Arts Building. Undoubtedly in no other Exposition has such an opportunity been offered to the landscape engineer for natural treatment.

Here it was endeavored to form a natural lagoon or lake with inundations, capes and bays such as are found in our natural mountain lakes. This treatment fitted in naturally with the general conception of the Fine Arts Building, as seen by the architect, and has been most successful, in fact, throughout the planting, in connection with the Fine Arts Building, has seemed to fit in most naturally with the building, the overhanging gardens especially being very effective.

One of the greatest problems presented to the landscape engineer was a formation of a background for the South Gardens and the formation of a main entrance.

This has been obtained by the use of a formal double hedge twenty feet in height and eight feet in diameter, the main entrance being thirty feet in height, the hedge being clothed with Mesembryanthemum spectabilis, planted in boxes, the boxes being six feet long, two feet wide and two and one-half inches deep. These boxes were filled with soil, the soil covered with a wire mesh and the mesembryanthemum cuttings placed therein. The boxes were put on edge and nailed on to a frame work after the plants had been thoroughly established and growing. This hedge is 1150 feet in length and is watered automatically by a pipe running along its top. It may be interesting to note that there are 8700 boxes of this plant; the work in connection with the preparation of which was quite extensive, as may be readily imagined.

The Court of Four Seasons, which was the first of the courts to be planted, from a landscape point of view is our most stately court, the court proper being distinguished by its planting, which is almost entirely of gray, the plants consisting of eucalyptus fifty feet in height, old olive trees twenty-five feet high, made more interesting by their old gnarled stems, also by planting of Laciendra macrantha, Pittosporum crassifolium and other gray foliage plants.

The Court of the Universe is distinguished by a planting of seven thousand rhododendron hybrids in the main court, which are at present being replaced with Hydrangea hortensis.

In order to estimate the extent of this work, it should be borne in mind that these plants in each case were all established in boxes from 12x12 inches to 20x20 inches in size.

The fore-court leading to the Court of the Universe was planted with bright red azaleas from Japan (Hinodogiri), which is being replaced with red geraniums.

The Venetian Courts on the east and west of the Court of the Universe were treated with evergreens of variegated as well as green foliage, and have been most effective.

In one case dwarf conifers were used throughout, while broad-leaved evergreens were used in the other court. Naturally, of course, all of the courts were treated with small flowering annuals of brilliant coloring.

In the planting of the California Building it was endeavored to utilize so far as possible only native California plants. Free use was made of the Monterey cypress, Sequoia sempervirens, Sequoia gigantea, Thuya gigantea, Libocedrus, etc., in addition to which a small cactus garden was created, while native California bulbs and flowering plants were used for a ground covering.

A wonderful opportunity was presented by the preservation of the old cypress hedges which had been planted years ago in connection with an old garden. In the original scheme it was designed to build the building around this hedge, thereby forming a patio. Inside of the hedge has been created a duplicate of the "Forbidden Garden" in the Old Mission Santa Barbara, which, with its pool and many flowering plants, has been most attractive.

For formal specimens throughout the corridors and formal garden work Acacia latifolio and Acacia lophanta were utilized, the plants being from three to twelve feet in diameter of head as required.

Beds of Rhododendrons in Variety, Court of the Universe. Acacia Latifolia utilized in place of Bay Trees
Panama-Pacific International Exposition
John McLaren, Chief Landscape Gardening

The Home of Redwood

The purpose of the Home of Redwood at the Panama-Pacific International Exposition is to show just how beautiful redwood is when properly treated, and to bring together under one roof authoritative examples of the many and diversified qualities of this remarkable building material.

All the lumber used in the construction of the Home of redwood, except the floors is redwood. The redwood, technically called Sequoia Sempervirens, is one member of a distinct and unique family of trees, the Sequoia Gigantea, or Bigtree, being the other species. The Sequoia Sempervirens is found only along the fog belt of the California coast, extending in a strip from ten to thirty-five miles wide from the Oregon line on the north down into Marin County, with a few scattered groves of small commercial importance as far south as Monterey.

The Redwood tree grows to a height of 150 to 300 feet with a diameter from three to fifteen and even twenty feet at the base. The trees grow very close together and will average from 75,000 to 100,000 board feet to the acre. The record yield per acre is 1,000,000 board feet.

Largely on account of lack of transportation facilities redwood has been little known outside the Pacific Coast territory, but with the recent completion of direct rail connection this lumber will soon become one of, if not the, most important of building woods.

Unusual Qualities of Redwood

The imperviousness of redwood to decay has long been known, and therefore its use by the home builder for foundations is not only natural but advantageous. Homes in Humboldt and Mendocino counties were built on redwood foundations as long as fifty years ago, and the original sills are at the present day as sound as when first laid down.

The weather-resisting qualities of redwood, even when unpainted, are proverbial and make it pre-eminent for exterior use. Barns erected in Humboldt and Mendocino counties as early as 1855 were sided with unpainted redwood boards and covered with redwood shingles and shakes, none of which today show the slightest deterioration from exposure. The Russian Church erected at Fort Ross, California, in 1811, was built entirely of hewn Redwood, and although the building itself was completely wrecked by the earthquake in 1906, the redwood itself is as sound today as when the trees from which it was hewn were felled.

The fire-resisting qualities of Redwood are well known, and no forest fire, no matter how severe has ever destroyed a redwood forest or killed a sound mature redwood tree. In the great San Francisco fire of 1906, this characteristic was put to a most severe test, and while it is not claimed that redwood will not burn, it burns more slowly than any other wood, and when saturated with water, hardly at all.

Redwood for interior finish gives the home builder a wider range of possibilities than any other wood. He has in the first place all of the merits of any other, except the hard woods; in addition to which the entire absence of pitch renders it especially adaptable to paint or enamel. Again the great beauty and varieties of the grain permit effects obtainable with no other wood, especially in the natural finish, or when combined with the use of paint or stain.

The Home of Redwood embodies all these uses of redwood.

Its foundations, underpinning and floor joists are of redwood because they will not rot. Its entire frame is of redwood because it is in every way suitable for this purpose and is fire-resisting. The roof is covered with sawn redwood shakes and the sides with a novel combination of sawn redwood shakes and redwood beveled siding, because this material is everlasting and gives a greater protection than any other wood in case of fire.

The interior finish, with the exception of the floors, is of redwood because the width of panels and extreme beauty and varieties of grain are characteristic of this wood alone. The surface finishes are beautiful and vary from the simple white of hygienic utility to tones of exquisite depth and richness.

In fact this residence shows in finished form the uses of redwood in house construction wherever it is suitable. Attention is called to the fact that the only places in the entire structure where redwood is not used are the floors and steps. Here oak is used for the interior and Douglas fir for the exterior.

Specifications of the Home of Redwood

In the limited space available it is not possible to give full specifications governing the material and workmanship represented in this exhibit, but to those who are desirous of duplicating the Home of Redwood, either in whole or in part, full information and complete list of materials will be furnished upon request.

The foundation, underpinning, floor joists, and frame, are all built of merchantable redwood.

The entire building is sheathed, inside and out, with surfaced one inch No. 2 Common Redwood, building paper being put next to the sheathing and immediately underneath the exterior and interior finish.

The roof is covered with sawn redwood shakes dipped in Cabot's Shingle Stain before laying.

The sides are covered with a combination of sawn redwood shakes and a special pattern of clear, dry redwood siding.

The bathrooms, kitchen, pantry and servants' rooms are finished in select dry tongue and groove redwood.

The other rooms are finished in clear dry redwood panels as shown in the accompanying photographs.

Formulas for Interior Finishes

In general, the proper treatment of redwood surfaces is as follows:

After the wood is thoroughly sanded and cleaned smooth, apply a coat of white shellac; then mix pigment of whatever color desired with white lead or zinc and boiled oil, thinning the mixture with turpentine if necessary, applying with a brush. Immediately thereafter, while wet, wipe with a soft rag, cheesecloth or dry brush, leaving a thin film of color and allowing the redwood grain to show through uniformly.

This process may be repeated until the desired tone is obtained uniformly, allowing previous coats to dry thoroughly first. After a satisfactory uniform finish color has been established then wax with two coats applied hot and rubbed to surface finish desired.

Any color tone may be produced depending upon the pigment, mixture and quality of workmanship.

The specific finishes shown in the various rooms were obtained through these formulas:

Reception Hall: Two coats white shellac, thinned with grain alcohol applied with a brush and then rubbed with beeswax.

Living Room: Two coats white shellac, thinned with grain alcohol applied with a brush and partially rubbed off with a soft rag (cheese cloth) and then rubbed with beeswax.

Dining Room: Two coats white shellac, thinned with grain alcohol applied with a brush, one coat of walnut brown pigment applied with a brush and partially rubbed off with cheese cloth and then rubbed with beeswax.

Butler's Pantry: One coat white shellac, thinned with grain alcohol applied with a brush, two coats white lead paint and one coat of white enamel.

Kitchen: Same as Butler's Pantry.

Servants' Quarters: Same as Butler's Pantry and Kitchen, except that the third coat is paint instead of enamel.

Shower Bath: Same as Butler's Pantry and Kitchen.

Family Bath: Same as Butler's Pantry and Kitchen.

Bedchamber "A": Two coats white shellac thinned with grain alcohol applied with a brush, two coats of pinkish brown pigment applied with a brush and partially rubbed off with cheesecloth and then rubbed with beeswax.

Bedchamber "B": Two coats white shellac thinned with grain alcohol applied with a brush, two coats mauve colored pigment partially rubbed off with cheese cloth and then rubbed with beeswax.

Sitting Room: Two coats white shellac thinned with grain alcohol applied with a brush, two coats golden brown pigment applied with a brush and partially rubbed off with cheese cloth and then rubbed with beeswax.

Cost of Building

Many questions have been asked relative to the cost of the "Home of Redwood" and as to what the building could be duplicated for in various parts of the United States.

This is a question that is very difficult to answer, not only because the cost of the raw material differs greatly in different sections, but also the cost of the labor is much higher in some localities than in others. For example, in San Francisco labor is probably higher than in any other place in the United States while the cost of the redwood lumber would be less; yet it is the labor that really counts.

In a general way it can be said that it costs no more to build a home out of redwood than any other soft wood, and it costs considerably less than some soft woods such as white pine. Redwood compares favorably in price with red cedar and cypress, is a little higher than Douglas fir and yellow pine and is less expensive than either Eastern or Western white pine. A building of the type of the "Home of Redwood" may be made inexpensive or not in accordance with the amount of work which the owner wants to put into it. It is about the same thing as discussing the relative price of two suits of clothes. The cloth in either suit is not worth to exceed $12.00 or $15.00, yet one tailor might charge $30.00 for the article and another $65.00 in accordance with the skill and workmanship shown.

We give below an approximate idea of the cost of the "Home of Redwood" as erected here:

Lumber and Material (excepting millwork)	$ 2700.00
Millwork, including all Interior Finish, Gutters, Porch Rail, Windows and Doors	2500.00
Labor	1400.00
Plumbing	850.00
Painting and Finishing	$ 1375.00
Electrical Work and Fixtures	450.00
Tiling	285.00
Incidentals	500.00
Total	$10,060.00

Redwood Exhibits at the Exposition

In order that a good idea may be obtained of the great variety of uses of redwood as shown at the Panama-Pacific International Exposition the following partial list of exhibits where redwood is used is given:

Forestry Court: The Home of Redwood; Lumbermen's Building and House of Hoo-Hoo; White Pine Home, redwood shingled roof; The Brick Home, interior finish; Northeast Corner Avenue of Nations and Avenue of States.

California Building: Humboldt County, Mendocino County, Sonoma County, Contra Costa County, finish in private offices, W. D. Egilbert, Commissioner-General.

Machinery Hall: Redwood Manufacturers Company, tanks, banded pipe, continuous stave pipe; Randall Elevator Door Control Company, sashes, doors and door frames; National Mill & Lumber Company, tanks and pipes.

Machinery Hall on East Side: Redwood Manufacturers Company, redwood tower and tank, supplied by redwood stave pipe; Leaver Manufacturing Company, office and railing of redwood finished in silver gray.

Mines Building: Pacific Tank and Pipe Co., redwood tanks, machine banded and continuous stave pipe; Redwood Manufacturers Company, tanks and towers.

Stock Barns: Redwood Manufacturers Company, silos; De Laval Dairy Supply Co., silos; McClure, silos.

Agricultural Building: Petaluma Incubator Co., Victor Incubator Co., Electric Hatch Incubator Co., Romeyn B. Hough, wood curios.

Hawaiian Building: Fish tanks.

Panama Canal Concession: Tanks supplying the water.

Palace of Liberal Arts: California Redwood Burl Co., Redwood novelties.

California Building and Panama Canal Concession: California Curio Co., Redwood novelties.

Pure Foods Palace: United States Government Fish Hatcheries, Anderson, Barngrover Company.

Palace of Horticulture: Bean Spray Company, Anderson, Barngrover Company.

Mines Building: The Dorr Cyanide Machinery Company, tanks; W. P. Fuller & Company, paint tanks.

In United States Government Mines Exhibit: Merrill Metallurgical Co., redwood solution tanks; L. C. Trent Engineering Co., tanks.

Redwood is used largely in the construction of the State and Government Buildings among which may be listed:

Virginia Building (reproduction of Mount Vernon): Redwood siding and shingle roof.

New Jersey Building: Redwood siding and blinds.

Swedish Building: Fancy redwood shingles.

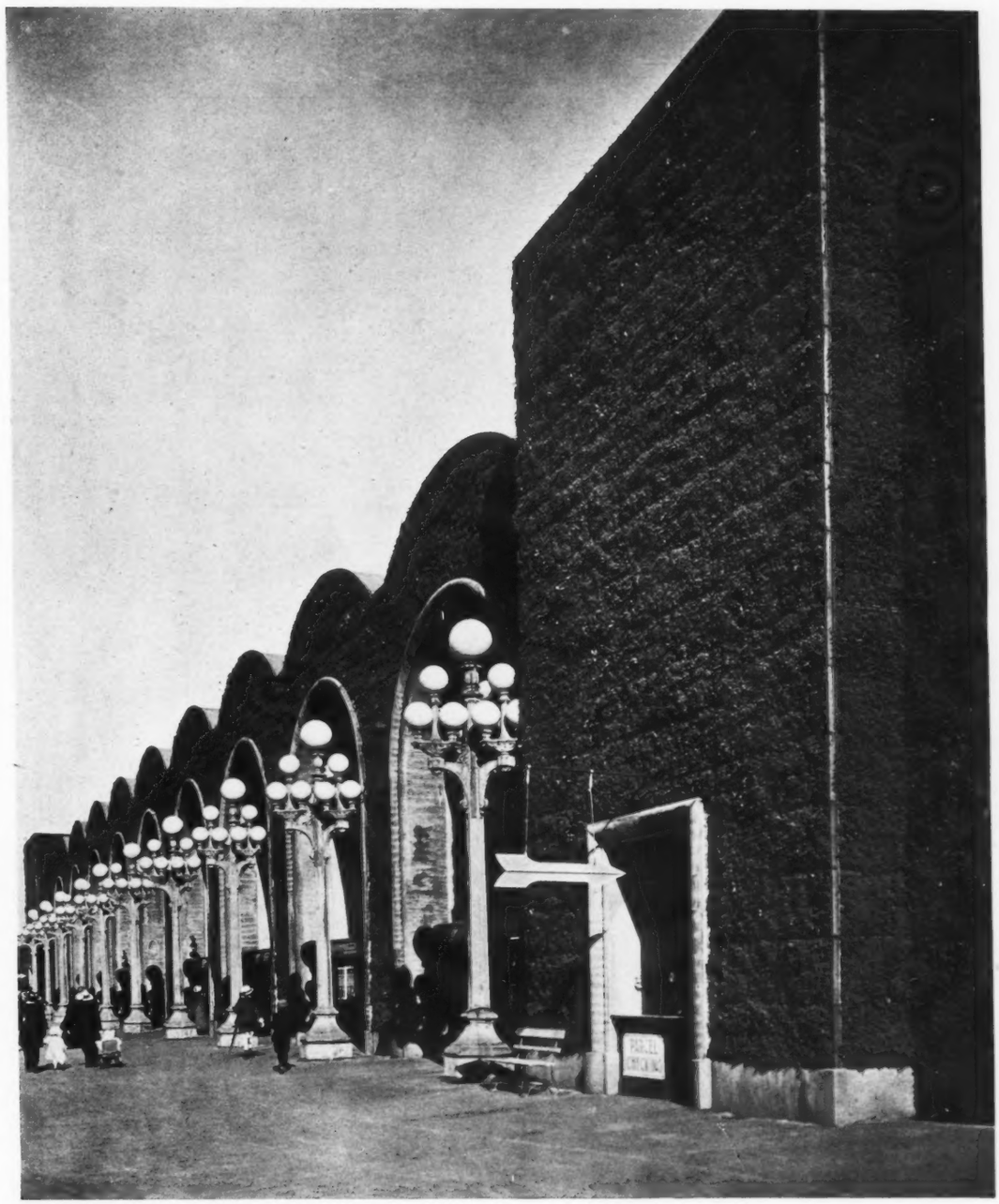
Other uses of redwood are shown by the following instances:

The booths of majority of exhibitors throughout Exposition are made of redwood.

The permanent sewers on part of grounds owned by the United States Government.

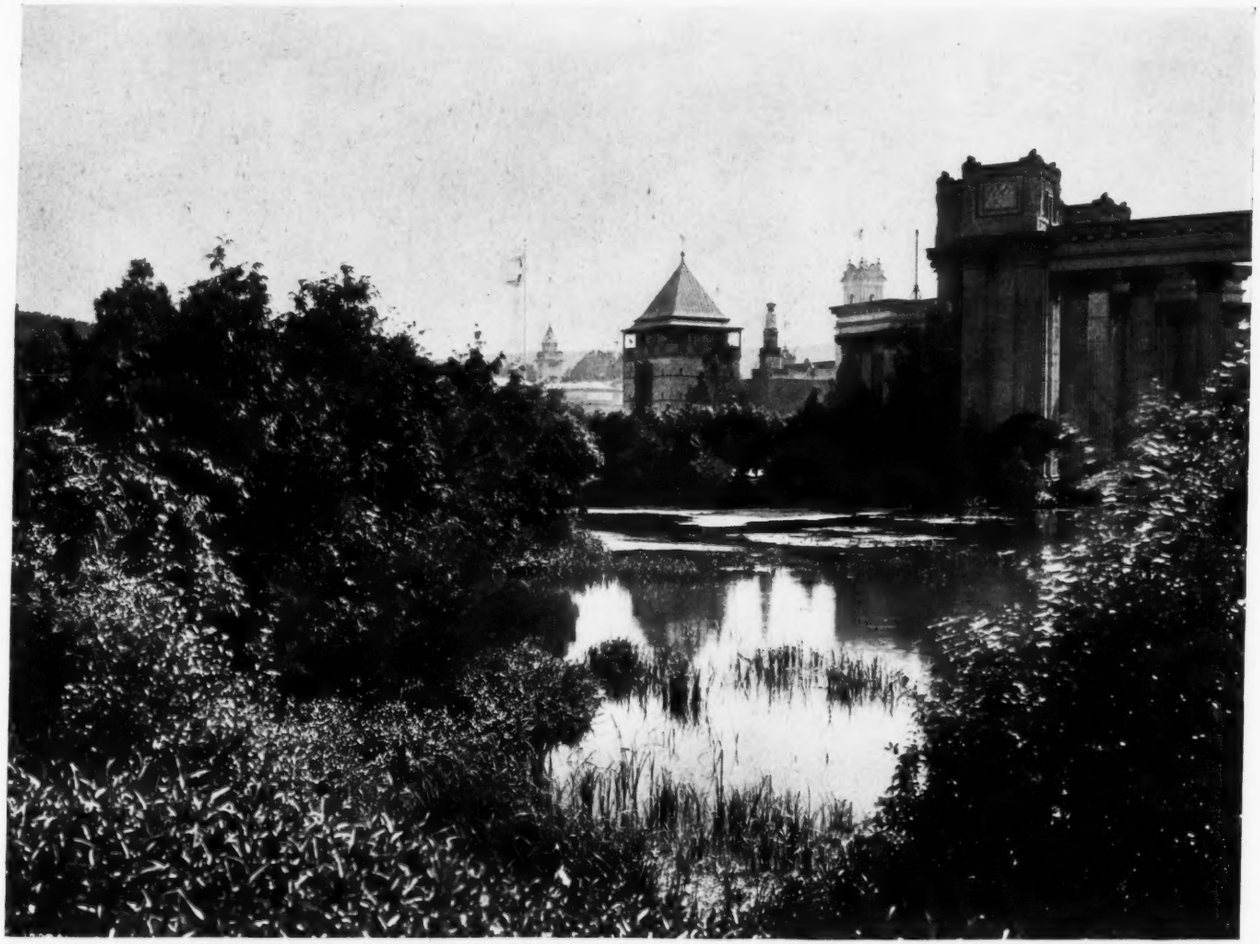
Much of the drainage pipe in various exhibit palaces.

The boxes for hedges for south boundary of Exposition grounds.



Famous Mesembryanthemum Hedge, forming Main Entrance and South Front of Panama-Pacific International Exposition.

John McLaren, Chief Landscape Gardening

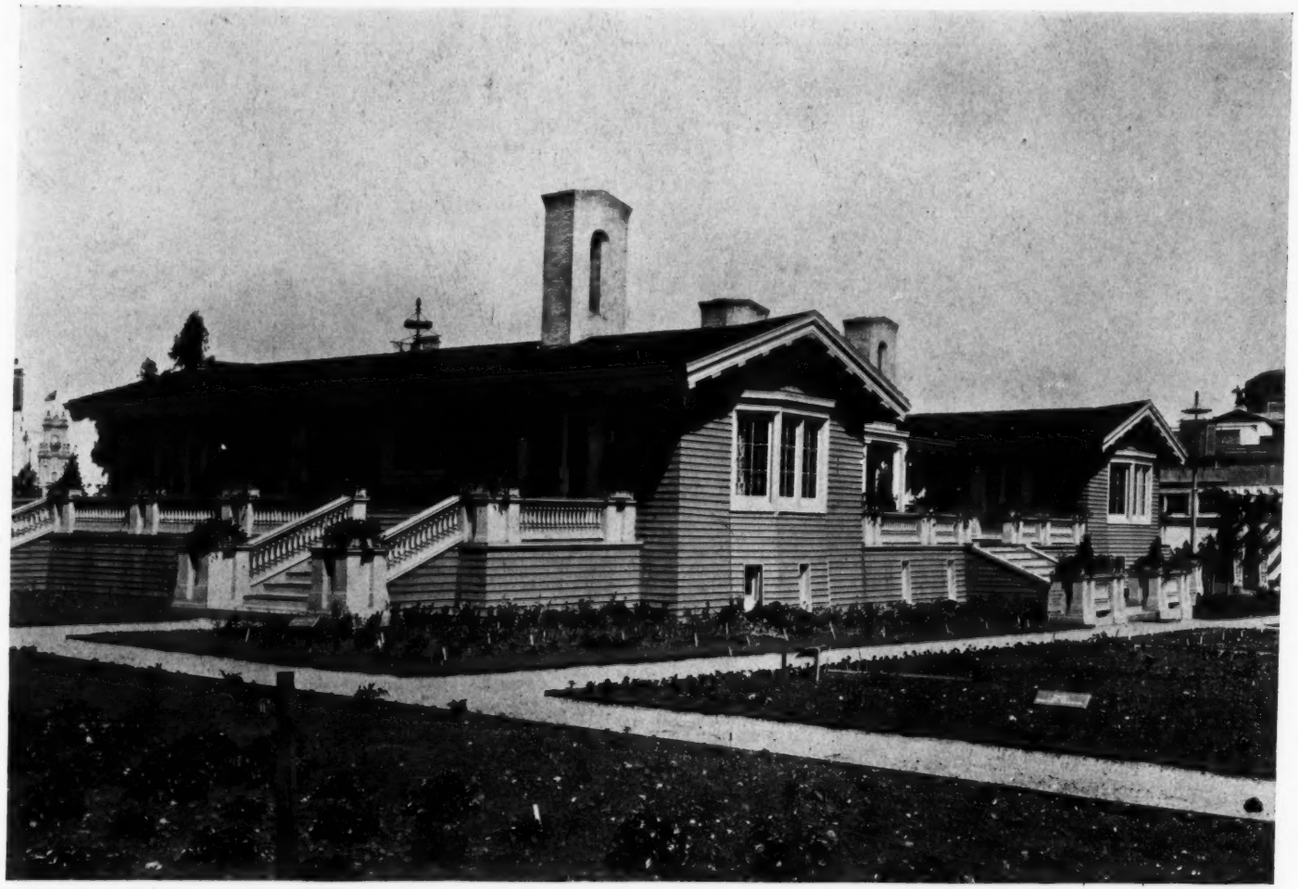


Characteristic Natural Grouping Surrounding the Lagoon, in Front of the Fine Arts Building — Panama-Pacific International Exposition

John McLaren, Chief Landscape Gardening

Treatment of Sunken Garden, South of Varied Industries Building, by the use of a Hedge of Veronica Buxifolia, Creeping Acanaea, Trained Acacia, Lophantha Acacia, Floribunda and Eucalyptus in Variety — Panama-Pacific International Exposition

John McLaren, Chief Landscape Gardening



The Home of Redwood — Panama-Pacific International Exposition

Louis Christian Mullgardt, Architect

Entrance Hall, "The Home of Redwood" — Panama-Pacific International Exposition

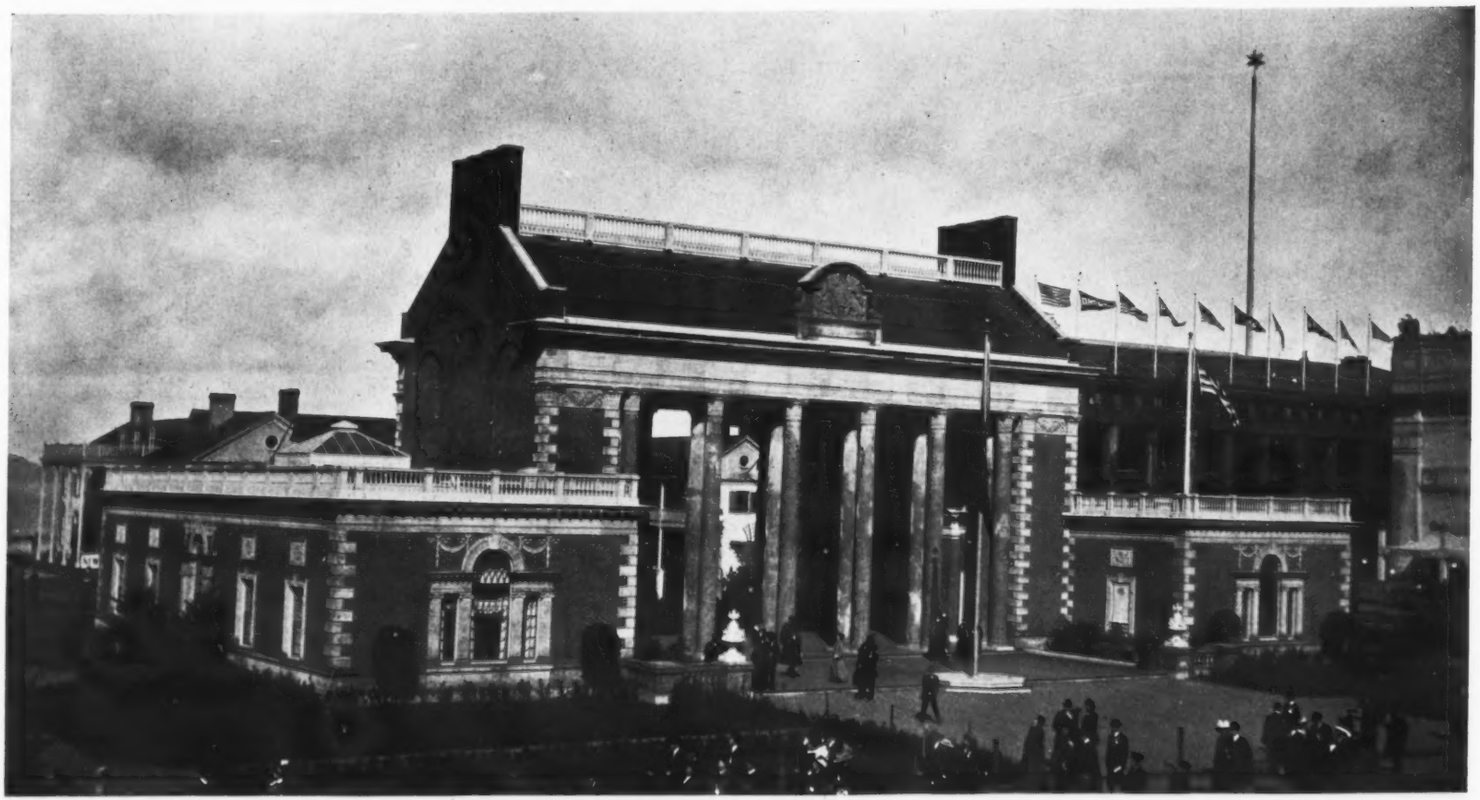
Louis Christian Mullgardt, Architect

West End of Living Room, "The Home of Redwood" — Panama-Pacific International Exposition
Louis Christian Mullgardt, Architect

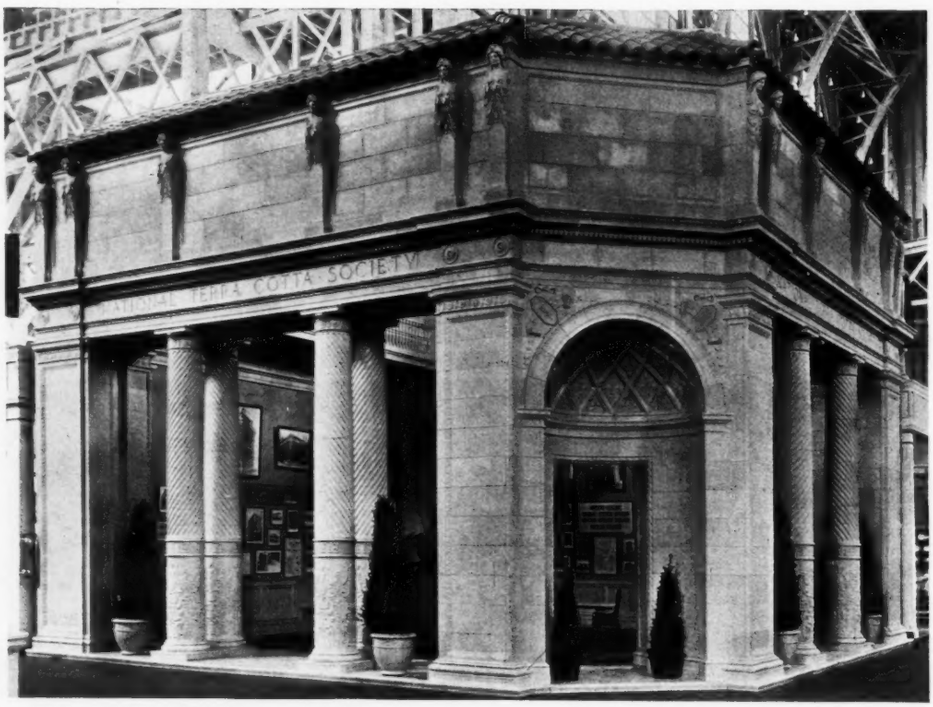
Dining Room, "The Home of Redwood" — Panama-Pacific International Exposition
Louis Christian Mullgardt, Architect

Sitting Room, "The Home of Redwood"

Music Room, "The Home of Redwood" — Panama-Pacific International Exposition
Louis Christian Mullgardt, Architect



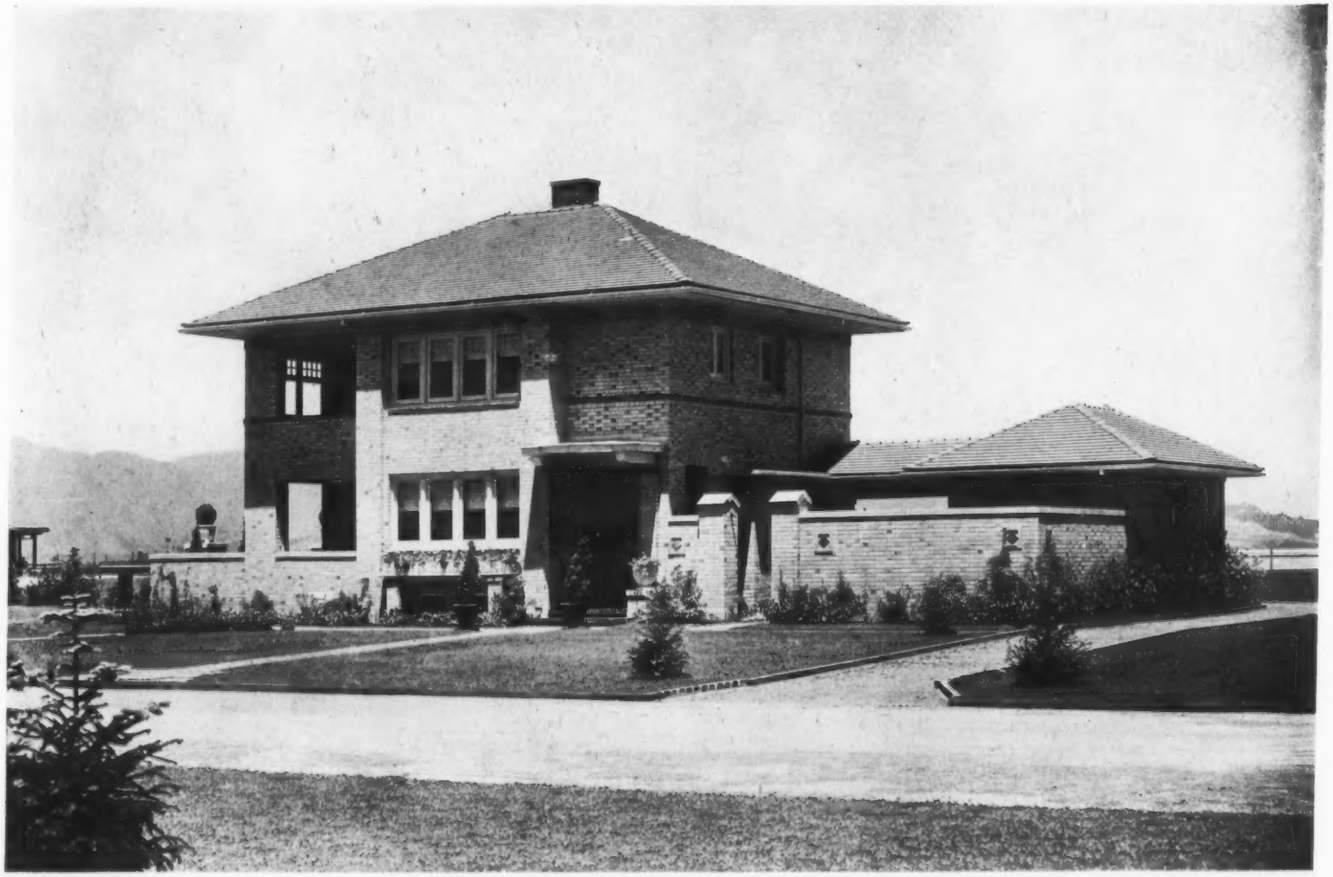
Pennsylvania State Building — Panama-Pacific International Exposition
Henry Hornbostle, Architect



National Terra Cotta Society Building in Varied Industries Building

Interior View of National Terra Cotta Society Building — Panama-Pacific International Exposition

George William Kelham, Architect — Photo, Gabriel Moulin



The Brick Home — Panama-Pacific International Exposition

Spencer & Powers, Architects

Detail of Façade of the Brick Home — Panama-Pacific International Exposition
Spencer & Powers, Architects

The Message of Brick

There is always something fateful about a message. We may know it is coming; we may see the messenger from afar, but until the seal is broken and cheering news be found we cannot shake off that portentious feeling boding of ill. Advantage was taken of this fact by the man who invented the dispatch of a brick at the first head bobbing up in opposition. Even if it missed him it gave the rebel that portentious feeling which must account in part for the respect so generally shown to brick ever since that first eventful throw. It was so many ages ago that even the Chaldeans lost the record. But it is not of punitive things we would speak, to wit: the bats, but rather of promises in perpetuity of the perfect shelter of a home whose walls from ground to gable and throughout the sacred perimeter proclaim the symmetry and beauteous truth of brick.

If you have never thought that bricks have a language the same as flowers of spring and leaves of autumn, just lay aside these illustrated pages and go to that spot under the Presidio Heights where Massachusetts has reared her golden dome, eloquent of liberty; face the north where rise the mountains of Marin, eloquent of massive strength beyond the purple ebb and flow of ocean, eloquent of mystery; and there in the emerald foreground of peaceful sward your eyes will rest upon The Brick Home, eloquent of sacred pleasures of hearth and fireside.

The greatest proof of inspiration in the message of the Panama-Pacific International Exposition to the world is found in the responses from the remotest lands whose best productions have been sent to escape the ravages of insane war and to bring to peaceful lands messages eloquent of the beneficence of peace.

Right fitting also it is to note that this inspiration wrought upon the imaginations of some of our countrymen way back in Illinois to drop an ideal home into the midst of pretentious state edifices. Through the irony of fate it fell upon a plot assigned to, but relinquished by a war-torn State. The men who conceived the idea of The Brick Home were not slow to incorporate their enterprise under the name of Panama-Pacific Clay Products Association. In its Illinois charter the object of the association is stated to "Promote the use of clay products by publicity and, as a part of the initial campaign, to build a model, modern, low-cost, fire-resistant residence at the Panama-Pacific International Exposition."

The Brick Home — Panama-Pacific International Exposition
Spencer & Powers, Architects

It is perhaps too limited to speak of the message of brick in this instance. Look at the roof whose shingles are of clay. Even the fountain plays in its terra cotta way. The garden furniture, wall coping, partitions, walks, porches and terrace, kitchen, bath, lavatories, hearth and mantel—all are expressions of the art of the clay worker.

The President of the Panama-Pacific Clay Products Association, Mr. Herman L. Matz of Chicago, himself, carried The Message of Brick to the clay workers of California. He told how even organized labor through its Bricklayers, Masons and Plasterers International Union of America stood ready to contribute its share by uttering a sermon in masonry if we of the Coast would but write the words in clay eloquent. He told of how the brick makers and sellers of the East would raise moneys to publish the result to all the world of homeseekers, lovers and builders, so that by combined efforts the bible of brick would have added unto it a new chapter of revelations. He captured his audience.

Continued on page 46

Brief Outline of Weed Lumber Company Exhibit

WHITE AND SUGAR PINE INDUSTRIES BUILDING
PANAMA-PACIFIC INTERNATIONAL EXPOSITION—SOUTH GARDENS

By G. X. WENDLING

Responsive to a request from the Editor of *The Architect* for some information on the subject of the special merits and value of California White Pine "Nocheck" Veneers and the new method of manufacturing Doweled Doors, I am pleased to offer the following general information.

An important discovery, as it might be termed, in the wood-working industry, is that of veneers and panels manufactured from California White Pine. In recent years veneers and panels have become the main material for artistic finish and the paneling of doors. While the hardwoods have filled to a great extent the demand, yet a greater demand has been made for a material easily secured and cheaper in costs, that would carry the grain and answer the same purpose as hardwoods. The main fault with the cheaper and lighter materials generally has been that after being stained, enameled or finished in any manner, the panels would check or split.

To meet the demand for a cheaper and lighter material the Weed Lumber Co., at Weed, California, experimented in veneers and panels manufactured from California White Pine with the result that they have produced a veneer or panel with beautiful grain that absolutely will not check, will produce a handsome natural finish or will take the stain of any other wood. It is especially adapted for enamels from the fact that it will always hold its face without checking, and show an unmarred surface so far as the action of the wood is concerned.

At the Panama-Pacific International Exposition these panels have been used for the interior decoration of the Southern Pacific Building, the office of Commissioner-General Egilbert, of the California State Commission. The White and Sugar Pine Industries Building and the Siskiyou County exhibit in the California State Building, and have caused extensive affirmative comment on account of the wondrous beauty of grain and perfection of surface and workmanship.

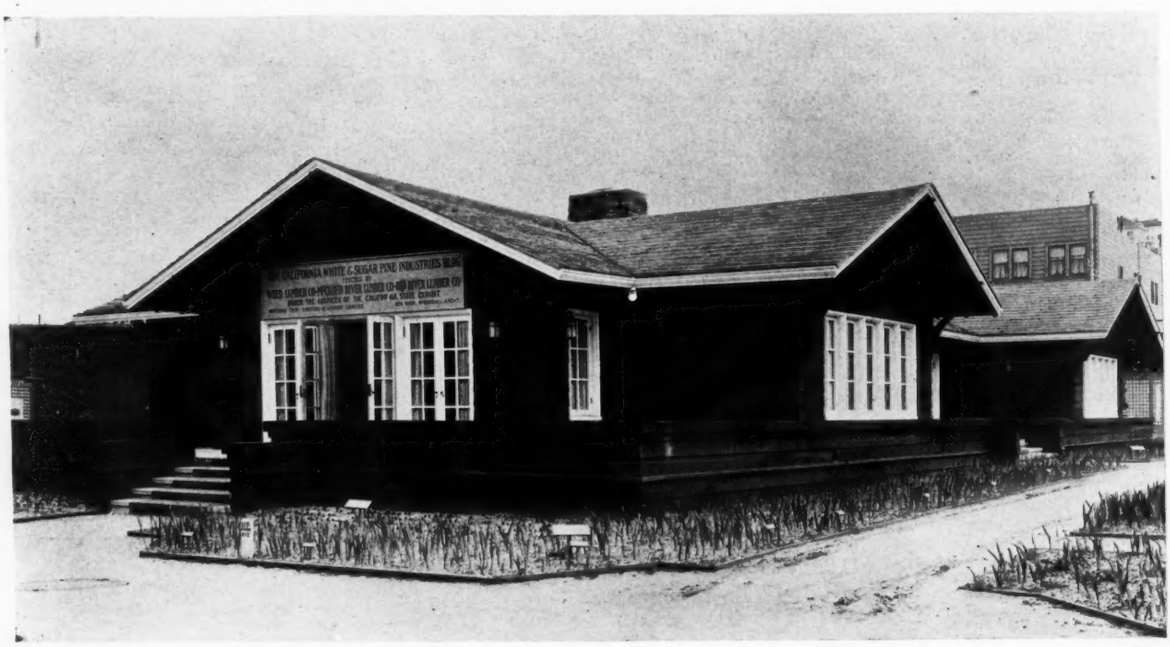
These veneers and panels should be given attention by all architects desiring a finish showing beautiful grain and a material that will not show imperfections from checking.

The panels are particularly valuable when used for enamel finish in hospital and other sanitary work, producing a perfect enamel surface with the application of two or three coats of enamel as it is a white surface or base in the natural state.

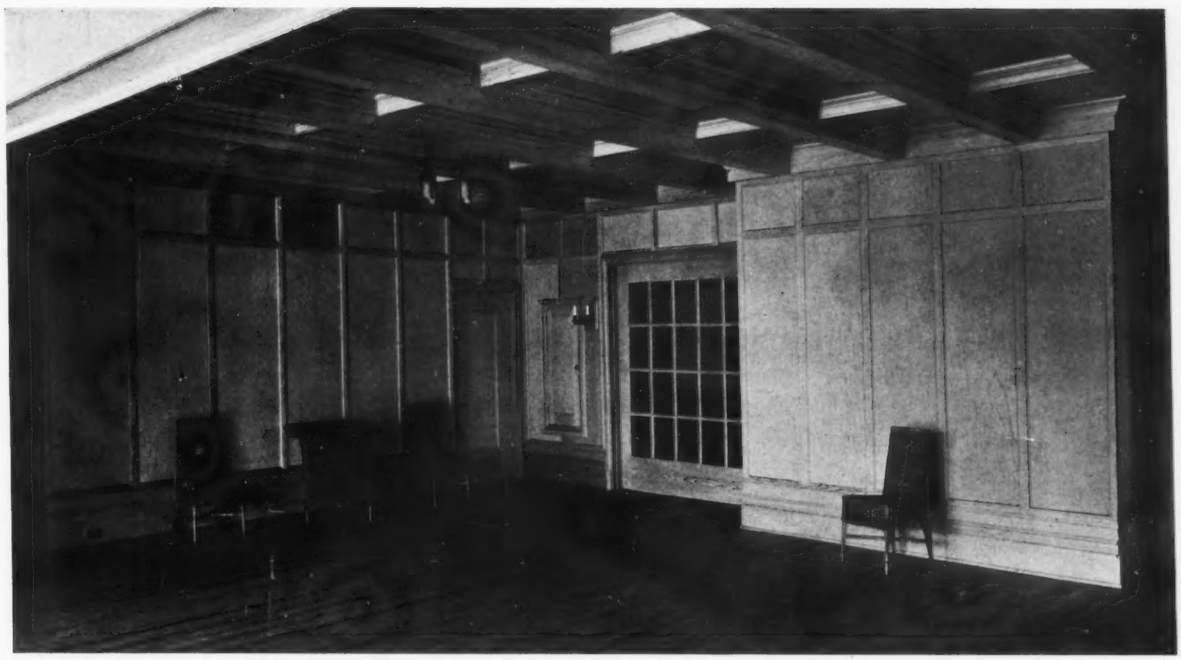
The success and popularity of these veneers and panels is vouched for by the demand from all parts of the United States and foreign markets. While the cost of this material is modest, on the other hand it is a perfect substitute for the more expensive woods and gives perfect satisfaction.

In this progressive age it is essential that the buyer should have the best at the lowest cost. This result has been achieved in the production of the white pine doors in this building, in that all the doors in the structure and those on exhibition are assembled by the new and advanced method shown in the illustration.

The one great difficulty experienced by door manufacturers has been (even when the greatest care is exercised in the manufacture) that of open joints after the door has been placed in warehouse or hung on the job. This difficulty has not only been the cause of claims for repairs or replacement, but generally ended in loss of customers. To obviate this has been the one great desire of the door



California White and Sugar Pine Industries Building — Panama-Pacific International Exposition



Interior View California White and Sugar Pine Industries Building, showing Wall Panels

manufacturer—in many cases it has been the waking thought and sleeping dream. Many ideas and ways have been devised, but they have been either too expensive to be effective, or have not proven satisfactory.

As is well known the old-time bench or hand furniture made by the cabinet maker, was built to stand the wear of years. The method of the old craftsmen was to cut a V in the tenon or dowel and insert therein a wedge, the tenon or dowel then being driven into the mortise or hole and firmly wedged, causing the sections of furniture to become absolute joints.

While this method is as old as the hills, the bringing of same to an up-to-date standpoint, whereby it could be handled in an economical manner in the manufacture of doors and furniture by automatic machinery, has been the brain work of Mr. C. E. Evans, General Manager, Weed Lumber Company, Weed, California.

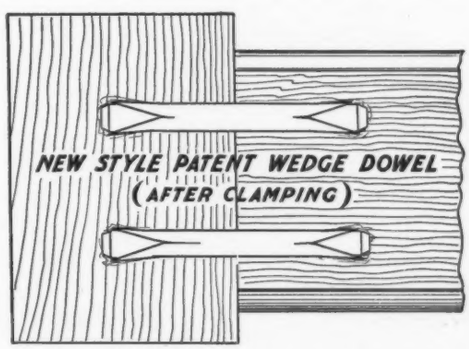
In a plant with a capacity of from three to four thousand doors per ten hours, Mr. Evans has succeeded in perfecting the method and the machines whereby same is put into effect, at practically no extra cost over the old method of common doweling.

In the old method of doweling doors, or that used by the general door manufacturer at this time, the hole is bored deep, to the end that the dowel might not come in contact with the bottom of the hole, thereby causing joint to open. The rule in gluing is that the glue is placed in the hole of the stile or rail and the dowel then driven in; this in many cases causes the dowel to push the glue forward, which would form in the pocket and become of no use in holding the dowel, thereby causing the dowel to be easily loosened, hence a loose or open joint.

With the new method of Wedge Dowel, the holes are bored short of the dowel, one end of the dowel is first wedged and fed automatically into the rail, the rail is then passed through another machine and the other end of the dowel wedged. In assembling the parts of the door in clamping device, the wedged ends of dowel come in contact with bottom of holes, causing a complete wedge at each end, and forcing the glue back around the dowel, thus making an absolute joint, similar to the old wedging method of the cabinet maker.

Not a single claim for open joint has been made since this method has been installed, during which time several hundred thousand doors have been manufactured by this process, shipped to the trade and used by the consumer.

Without doubt this is the most valuable improvement in the manufacture of doors since the beginning of the dowel method, both from the standpoint of manufacture, and the practical indestructibility of the door, and will apply equally well to the manufacture of furniture.



"If it is Wedge Doweled it is indestructible"

A feature of dominant value in this improvement is the fact that since the adoption of the dowel manufacture of doors by the American door manufacturer, we have been unable to dispose of our product in foreign countries, because they demand doors manufactured by the old and expensive method of mortise and tenon, preferably wedged. With the Wedge Dowel, however, this objectional feature has been overcome entirely, and without doubt the American door will again come in strong demand with our foreign trade.

Wall Surfaces of the Exposition

By A. H. MARKWART
ASSISTANT DIRECTOR OF WORKS AND CHIEF OF CONSTRUCTION—PANAMA-PACIFIC INTERNATIONAL EXPOSITION

Able critics have judged the exterior appearance of the entire Exposition from a color and texture standpoint to be one of great beauty. In adopting for the wall surfaces a treatment to give the effect of the famous Roman Travertine, that peculiarly beautiful stone found near the River Tiber, there was as far as expositions are concerned, a unique and original departure from the usual dazzling white plaster effects.

Consequently the entire exterior of the Exposition, instead of suggesting plaster and stucco, conveyed an impression of rare marble, soft in tone and color, and the stratified texture of its surface produced repose for the eye by day and by night. It had no distinct, sharp color, but may be described as having several warm tones of gray and pink blended together, all an integral part of the mixture.

While the architecture of the Exposition has many admirable features and has been the subject of favorable comment by all, it undoubtedly would not have created the impression which it did, had it not been a "color Exposition." It must be conceded that the Exposition was interesting not only from the architectural viewpoint but also from the texture and color of the exterior plaster.

Roman Travertine was first artificially represented in the new Pennsylvania Station in New York City by Mr. Paul E. Denivelle, the originator and supervisor of the Exposition plastic scheme. McKim, Mead & White, the architects of the structure, used the natural travertine for a decorative wainscoting in the passenger waiting room, but this material was too costly for use on the entire walls and vaulted ceilings of this room, and it occurred to them that a suitable imitation would make an agreeable substitute for the great portion of the wall area above the wainscoting. Mr. Denivelle, a happy combination of the artist and artisan, undertook this important work and carried it out successfully.

The work done in the Pennsylvania Station was in 1910 and captures the admiration of all who see it. Therefore, at the suggestion of Messrs. McKim, Mead & White, the Division of Works engaged Mr. Denivelle in position of Supervisor of Texture and Modeling in order that there might be assured a successful plaster exterior, with due regard to its practicability, originality, color and texture. In this capacity Mr. Denivelle carried out the plastic scheme and superintended the making of architectural models to the end that the proper interpretation was given to the architect's work, and by this arrangement all instructions to modelers were given through one source. Mr. Denivelle was attached to the Bureau of Building Construction and the Departments of Architecture and Color and Decoration, and co-operated extensively with the Department of Sculpture.

But there was a difference between the use of a few tons of colored cement plaster cast blocks over the comparatively limited interior wall area in the Pennsylvania Station and the use of a gypsum product on the wood-sheathed exterior area of all the buildings upon the Exposition grounds. When twenty-five to thirty thousand tons of material were to be used a widely different problem was presented. Experienced Exposition contractors pronounced the textured and colored exterior as impossible of accomplishment, and many of the Western gypsum mills looked unfavorably upon the proposal, so for a time the artistic success of the Exposition was threatened by the attitude of both of these necessary factors. However, Mr. Denivelle, fortified with the knowledge obtained by the solution of a similar problem, believed that the Exposition plastic scheme might be made successful if the plaster manufacturers could be interested. In this connection he succeeded in convincing Dr. Will L. Ellerbeck, the head of the Nephi (Utah) Plaster and Manufacturing Company, of the feasibility of the process. Dr. Ellerbeck's special technical training in the mineral earth industries and his extraordinary facilities from a mill operating standpoint made him a valuable adjunct to the scheme, and while the hope of anticipated profits may have spurred him on to some extent, it must be said in all fairness and without detracting from others, that his co-operation with Mr. Denivelle was a potent factor in bringing about the successful result.

The composition used for covering the exterior walls consisted of a specially prepared gypsum product colored at the several factories in accordance with formulæ furnished by the Exposition Company and manufactured in such a way as to be adapted particularly for exterior use. The tone and horizontally stratified treatment was carried through all architectural forms and surfaces, including all sculpture. Here and there a note of contrast was obtained by integral castings of columns in replica of red sienna or Numidian marble, or a Verde antique bronze and gold, but even here a harmonious relation was produced. By this method life and interest was given the vast wall surfaces. Where cast forms were not used, the plastic composition was applied directly to the grooved sheathing. All cornices, architectural columns and decorative ceilings were cast from moulds, and secured to the skeleton frame of wood.

All stucco on flat surfaces was two-coat work, the first coat being a base coat of chosen mixture (without color) with sand and fibre, the second coat being of a colored mixture with a suitable portion of sand and finished with the desired texture in imitation of the Travertine, as previously stated.

The same effect was carried out on all cornices and moulded surfaces, which were cast from the ready colored mixture. The procedure in manufacturing was to prepare glue moulds in the usual manner. After the mould had been properly prepared, the first step was to lay on, in two operations, the light and dark veins of liquid, colored composition. This was put on by means of specially constructed multiple nozzle veining cans. The second step was to lay over the veins the semi-dry or slightly damp mixture; the veins forming the stencil between which the semi-dry or slightly damp mixture showed as variegated indentations. This mixture was just wet enough to take on a permanent set, and then a thick backing of the same mixture, but in a more liquid condition, was applied.

To make up the full thickness, the mould was further backed up with uncolored mixture and reinforced in the usual manner with hemp dipped into the liquid mixture, producing finally a cast varying from three-quarters of an inch to two inches thick. In the process, the stratifications were laid on the glue mould in such manner as to meet the conditions of having all the veinings of the cast running horizontally. This was true, particularly of the columns, raking moulds, cornices and similar parts.

The net result after the removal of the glue mould was a cast showing stratifications, color veinings and variegated indentations. The indentations occurred at all points where the semi-dry mixture was placed on the mould, the whole giving the general effect of the chemically precipitated stone which it was intended to imitate.

Most of the hardwall of the plaster exterior was "Nephi," and this was made of gypsum rock from the Nephi (Utah) quarries. This rock is of exceptional purity and has ideal physical qualities, being dense and non-crystaline. In the mixture of hardwall for Exposition purposes this rock was properly calcined and there was added to this material a mixture of asbestos fibre, wood pulp and silicate of alumina to control volume changes, to induce plasticity and to make it capable of resisting moisture. The formula from which this was prepared was worked out by Dr. Ellerbeck. To each ton of this was added American raw sienna or

French ochre, generally the latter, burnt sienna and raw umber to secure the color prescribed by the Exposition. The total amount of color was thirty to eighty pounds per ton, depending on the color values of pigments, which varied, American color being particularly weak, and on the use to which the final mixture was to be put. The Nephi Company supplied approximately 20,000 tons of material for all Exposition purposes, which included scratch coat, finish coat, colored casting for both staff and statuary, and this required over 500,000 pounds of pigment.

The formulæ furnished by the Exposition Company to the manufacturers of hard wall plaster were in two forms, one for plastic Travertine and the other for casting Travertine. The prepared material was used by the contractor in accordance with instructions received from the Exposition's demonstrator, who, in turn, kept in close touch with the factories, so that changes in formulæ could be made to accommodate the varying color of the original product. The Exposition made tests of every car of plaster delivered to the grounds, which insured a uniform color, for, in the event of a shipment of a car of plaster which was off color, either other colored matter was added to bring it to the required shade, or, if this could not be done, it was rejected.

The following information refers to the base formulæ used in connection with the material manufactured at the mills of the several companies.

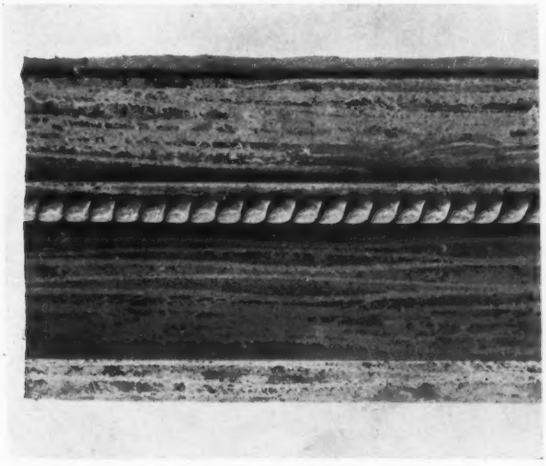
The formulæ furnished to a mill for plain wall surfaces consisted of three dry pigments and fibred hard wall plaster, as follows:

	Lbs.	Ozs.
Turkey raw umber	2	5
Italian burnt sienna	1	9
French ochre	3	8¼
*Fibred exterior hardwall	500	..

*Sometimes this was unfibred.

This came dry from the factory and the contractors added one-half part of sand to one part of the dry mixture, plus 93 pounds of hydrated lime to 500 pounds of hardwall, and the required amount of water. This plastic mixture was applied to the walls in the usual manner, over the scratch coat of fibred uncolored hardwall, as elsewhere noted, and was stippled in lines with special hand brushes and then troweled to a hard, smooth finish, leaving the stratifications desired.

Another formulæ was furnished to the factories for the material which was to be used in casting the staff. This formulæ was based on the use of 16 pounds, 11.5 ounces of color, and 500 pounds of casting plaster, as follows:



Cast Travertine. Note dark and light veins and granulations.

	Lbs.	Ozs.
Turkey raw umber	3	12
Italian burnt sienna	1	15½
French ochre	11	..
Casting plaster	500	..

Cast Travertine, with Ornamentation.

This was the body mix which was shipped from the mills direct to the grounds and used by the plaster contractors in four different ways in the manufacture of the staff. The material for the light veins was mixed by the contractor from the body mix above referred to in accordance with the following formulæ:

	Lbs.
White casting plaster	200
Hardwall plaster	70
Body mix colored casting plaster	270

and the material for the dark veins as follows:

	Lbs.	Ozs.
Body mix colored casting plaster	100	..
Raw umber	..	15

The semi-dry was made up of the body mix with an addition of an amount of sand to produce the desired granulations, while the wet mixture was the same without sand but with more water to produce the finished cast face. This liquid mixture, reinforced with hemp, was used to bring the cast up to the required thickness, as elsewhere described.

In conclusion it may be stated that while Mr. Denivelle was not engaged as either an artist or architect, nor as a sculptor, yet he must be mentioned among the first of those who contributed to the artistic success of the Exposition. His studies at the Paris Louvre and the instructions he received at the Geneve Beaux Arts in design and modeling, together with his extensive practical experience in New York, peculiarly fitted him to perform the work in question. It is conceded by all that the rare quality of the artificial Travertine dovetailed admirably into the beautiful color scheme of Mr. Jules Guerin. An engineer may be presumptious to offer an artistic appreciation, but it appears to the writer that here, there and everywhere about the Exposition the suggestions of Mr. Denivelle were of great value, for there was an intimate relation of his work in the fountains, the vases, the lighting standards, the modeling and the sculpture and here and there in the color scheme. And that he played an important role in assisting those in charge of special features cannot be denied, and this assistance is no doubt appreciated by the architects and those of the Division of Works, perhaps more than by the general public.

Modern Use of Faience Floor Tile

The faience floor in the New York State Building, Panama-Pacific International Exposition, consisting of four thousand feet of colored, matte glazed tile, is the conception of Mr. C. B. Meyers, of New York, and was executed after his ideas by the California China Products Company, of National City, California. To Mr. Meyers must be accorded the credit for this, the most modern use of the newest type of heavy matte glazed tile, in floor work. Up to the present time only a few of the more advanced architects have grasped the wonderful possibilities and appreciated the superior beauty of this material over all others for fine floors, but signs are not lacking that it is destined shortly to displace the time-honored marble and ceramics in the favor of the many who are awakening to its excellence.

The type of glaze used was developed specially for Mr. Meyers by the California China Products Company as the result of a long course of experimentation, and represents the most modern adaptation of this material to floor work. It is an extremely heavy, thick matte glaze, considerably harder than glass, with a dull, velvety surface which is almost totally non-reflecting, thus eliminating all unpleasant "high lights" which might result from the use of ordinary matte glazes. An irregular water mark adds a pleasing texture. Mr. Meyers' requirements were unusually severe, extending even to the control, in size and shape of this water mark, and hundreds of glazes were developed and discarded before the desired result was obtained. The beauty of the effect achieved, however, has certainly justified the time and labor expended.

The main body of the floor is composed of 6x6-inch tiles of a peculiar luminous buff color; the body of the panels is a dull grayish buff, and the borders are made up of three rows of 6x2-inch tiles, the central row being the same buff of the main floor, and the outer rows of a blended brown and green. A large amount of the latest type of decorative outline work is also used, as seen in the entrance panel bearing the words "New York" and the three circular plaques inset in the central portion of the floor. The largest of these bears the coat armor of the State of New York in correct heraldic colors, while the two smaller disks on either side bear the American eagle, perched on the starred and striped shield.

These disks represent perhaps the highest type of modern tile work, and at the conclusion of the Panama-Pacific Exposition, they are to be removed to New York and placed

Façade New York State Building — Panama-Pacific International Exposition
Charles B. Meyers, Architect

Beautiful Coat-of-Arms in New York State Building — Panama-Pacific International Exposition
Executed in tile by California China Products Co.

in the State Capitol at Albany. They are bordered by special radius tile in gray buff, lavender gray, and dark and light green, the main design being picked out in dark green on a light sea-green background. The inner portions of the disks, bearing the eagles and coat of arms of New York State, represent the constant labor of an expert in glaze work for a period of over a month, the glazes of course being painted in by hand. In all this work the colors are shaded in order to give relief and depth to the completed design, though in some cases the delicacy of the shading is such as to escape casual notice, and is apparent only as an effect in the beauty of the plaque as a whole. For instance, in the coat of arms of New York, the sun's rays shade from dark golden yellow at the center to light golden yellow at the extremities; the sky shades from light blue near the sun to darker blue at the zenith; the water of the stream shades from light blue in the foreground to darker blue in the distance; likewise the robes and flesh of the figures, the ribbon and letters of the legend and many other details of the design are thrown into relief by delicate shading of glaze. In many cases four or five shades of a single color were applied, and carefully blended at their juncture by hand in order to get the effect desired. The same processes are apparent in the bodies of the eagles and other details of the smaller plaques, representing in all a very large amount of the most careful and expert hand workmanship. We are informed by the California China Products Company of an interesting detail of the production of these plaques.

All this decorative work, consisting of about two hundred square feet and over one thousand pieces of tile, was glazed at one burning of their "gloss" kiln in order that no variation in firing conditions might affect the delicate shading. So great was the care used that every piece emerged perfect from the firing, with the exception of one cracked tile! This is a truly remarkable achievement, as any tile maker can testify, in handling the most delicate and complicated decorative work in matte glazes.

The soft blend of colors and harmonious and restful design of this floor make it a particularly pleasing example of the use of glazed tile, and the excellent foothold afforded, with entire absence of the slippery characteristics of marble and ceramics, will be a surprise to those who have feared that a glazed tile meant an unsafe floor. Much of this effect is due to the peculiar velvety surface of the glaze employed, which has been adopted by the California China Products Company as their standard floor glaze.

Very careful tests made over a number of days, and during those hours when the New York State Building is most crowded, absolutely prove that this floor is non-slip in the highest degree, and that such glazed tile floors are admirably suited for railroad stations, schools and all public buildings.

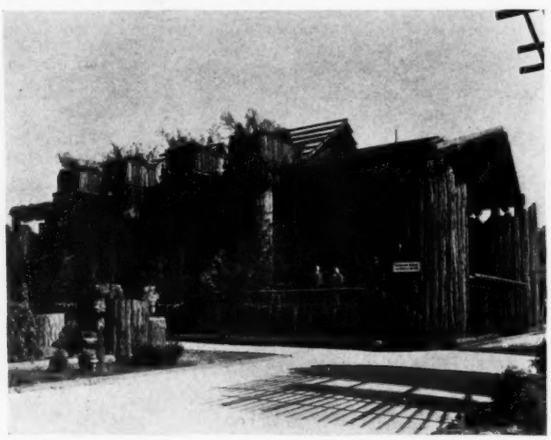
The permanent cleanliness of these colored glazed tile floors, both actually and in appearance, is beyond that of all other flooring material. Dust, mud or grease mop off easily, leaving the tile as clean as when first laid.

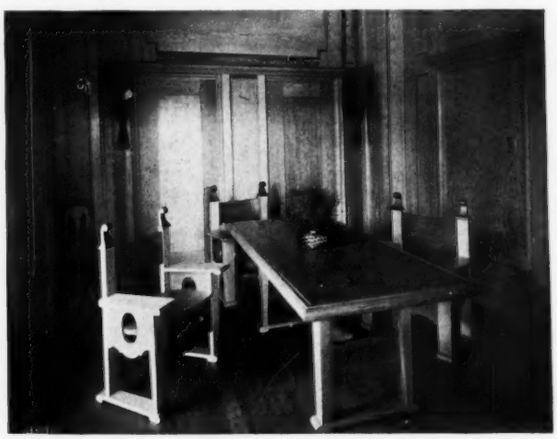
Such colored glazed tile floors are known to have withstood heavy wear in Italy and Spain for 100 years.

Lumbermen's Building and House of Hoo-Hoo

By A. B. WASTELL
EXECUTIVE SECRETARY, BOARD OF GOVERNORS

Lumbering with its allied interests represents the most important industry of the Pacific Coast and its activity is closely interwoven with the general prosperity of this region. Our forest products rank next to agriculture in value, while its industries employ many thousands of men and have dependent upon them hundreds of towns. The coastal States and Idaho contain five-elevenths, nearly one-half, of the standing timber of the entire United States, and represents a tremendous factor in our prosperity. Notwithstanding, the commissioners of the Panama-Pacific International Exposition did not include a forestry palace among the Exposition buildings, and the creation of a representative forestry building devolved upon the lumbermen of the Coast, who with pride in their trade, wanted the lumber business properly represented at this great Exposition. Subscriptions to a fund were made and Architect Bernard R. Maybeck was selected to design a structure that should embody a threefold purpose; the general exploitation of the Pacific Coast commercial lumber in a dignified but attractive presentation of its use and beauty, hospitality to visiting lumbermen and the promotion of sociability among the local lumber fraternity. Mr. Maybeck evolved from his love of the forest and his devotion to the potentialities of wood finished in the natural, in collaboration with his associate, Mark H. White,





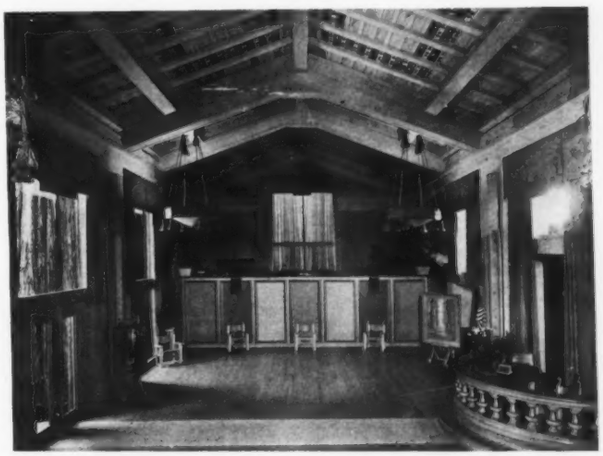
engineer, the charming forestry building presented on these pages as the Lumberman's Building and House of Hoo-Hoo. Hoo-Hoo is the national social organization of the lumbermen and the black cat is the emblem of this society.

The building, situated amid the most beautiful surroundings, in Forestry Court, South Horticultural Gardens, is flanked by arc pergolas made up of redwood saplings and logs in a charming setting of forest trees, shrubs, ferns and vines. Dominating the court are two huge pylons, sixteen feet in diameter, forty feet high, built up of redwood bark in skillful imitation of actual trees whose tops have been broken off. The facade of this bark-covered lodge is made up of eight log columns and includes specimens of the eight commercial trees of the Coast, redwood, sugar pine and white pine of California, Douglas fir (Oregon pine), western hemlock, western spruce, red cedar and Port Orford cedar of Oregon and Washington, these columns are surmounted by jardinieres, containing shrubs and vines, which also trail from the half-log eaves boxes.

Upon passing between the grotesque newels, consisting of slabs from Douglas fir butt logs, and up the hewed timber steps into the building, one enters a perfect Gothic hall of fine proportions with striking Oriental stenciled roof effect. The structure is built of Douglas fir. The roof is suspended from exterior trusses which are cleverly roofed over with redwood shakes. Main roof is shingled with both redwood and red cedar shingles to make it truly representative of the Coast.

In each end of the building are balconies constituting music and writing rooms, whose walls are boards and battens, redwood in one end and fir (Oregon pine) in the

other end, making a simple but effective finish. The balcony fronts are made up of alternate panels, forty inches wide, of Douglas fir (Oregon pine), California pine and California redwood. The fir and pine are rotary cut three-ply veneer, the redwood used is in full width boards. The floor in the main hall is 1x3 vertical grain western hemlock, which in its natural silver gray tone has been much admired, while especial appreciation has been shown by those who have enjoyed dancing over its smooth surface at several evening parties. As wood is a natural sounding board, the good acoustics of this hall were assured, and it is a delight to speakers and musicians, in striking contrast to the disappointment experienced in many plastered halls. The window openings are glazed with plate glass and at dusk the reflection of the arched interior in the end windows seems to extend on indefinitely.



The draperies, lighting fixtures and quaint sugar pine furniture are further proof of Mr. Maybeck's artistic touch. The California white pine room at the rear of the main hall is much admired, while the Douglas fir (Oregon pine) finish and paneling in the men's reading room, in the west end of the structure, with its floor of the same wood, indicates the possibility of this wood for finish, while in the east end California redwood is attractively shown as finish in the ladies' rest room. Thus all of the woods are shown in individual rooms as well as in the combinations in the main hall.

One of the most satisfactory of the many appreciative expressions in relation to the Lumbermen's Building, is the commendation of architect visitors, of this vicinity and from other States, who have shown great interest in this built-in display of the woods of the Pacific Coast. This interest has assumed a practical aspect, that the lumbermen most appreciate, in that several architects have brought clients to the building in order to show them the possibilities for home finishing in our Pacific Coast lumber.

A cordial invitation is extended to architects and their friends to visit this building at any time, and if it can serve as meeting place for a local gathering or for a national convention of architects our Board of Governors will be happy to devote it to such appropriate use upon application.

Further appreciation was shown by the International Jury of Awards in presenting a grand prize for the best collective exhibit of soft woods at the Exposition.

Pacific Coast Chapters, A. I. A.

THE ARCHITECT is the official organ of the San Francisco Chapter of the American Institute of Architects.

San Francisco Chapter, 1881—President, William B. Faville, Balboa Building, San Francisco, Cal. Secretary, Sylvain Schnaittacher, 233 Post Street, San Francisco, Cal.
Chairman of Committee on Public Information, William Mooser, Nevada Bank Building.
Chairman of Committee on Competition, William B. Faville, Balboa Building, San Francisco.
Date of Meetings, third Thursday of every month; annual, October.

Southern California Chapter, 1894—President, A. C. Martin, 430 Higgins Building, Los Angeles, Cal. Secretary, Fernand Parmentier, Byrne Building, Los Angeles, Cal.
Chairman of Committee on Information, W. C. Pennell, Wright & Callender Building, Los Angeles.
Date of meetings, second Tuesday (except July and August), (Los Angeles).

Oregon Chapter, 1911—President, A. E. Doyle, Worcester Building, Portland, Ore. Secretary, William G. Holford, Chamber of Commerce Building, Portland, Ore.
Chairman of Committee on Public Information, William G. Holford.
Date of Meetings, third Thursday of every month (Portland); annual, October.

Washington State Chapter, 1894—President, James H. Schack, Lippy Building, Seattle, Wash. Secretary, Arthur L. Loveless, 513 Coleman Building, Seattle, Wash.
Chairman of Committee on Public Information, J. S. Cote, 520 Haight Building, Seattle.
Date of meetings, first Wednesday (except July, August and September), (at Seattle except one in spring at Tacoma); annual, November.

SAN FRANCISCO CHAPTER, A. I. A.

The regular monthly meeting of the San Francisco Chapter of the American Institute of Architects was held at the Bergez-Franks restaurant, 421 Bush Street, on Thursday, June 17, 1915. The meeting was called to order at 1 p. m. by Mr. W. B. Faville, the President.

The minutes of the meeting held April 13, 1915, were read and approved.

Board of Directors: The Board of Directors reported that in order to assist the Southern California Chapter in payment of expenses incurred in the matter of the law of 1872 and also in order to make good the Chapter's obligation to the Architectural League Scholarship Fund, that a subscription list is being circulated to raise the required amount.

Sub-Committee on Competitions: The committee reported that the competition for the new wing of the San Francisco Hospital had been decided and Mr. Hermann Barth had been appointed Architect for the work.

Sub-Committee on Public Information: Nothing to report.

Legislative Committee: This committee was pleased to report that after many years of effort on the part of this Chapter and the Southern California Chapter, the statute known as the law of 1872 had been repealed by an act of Legislature and the bill signed by the Governor. The repealing act becomes a law in August and will permit school and county boards to select an Architect either by competition or appointment and will do away with the requirement of the Architect furnishing a bond, and other obnoxious features which were embodied in the old act.

The amendment to the act regulating the practice of architecture, although having passed in the Senate, was not reported out of committee in the House, and will therefore have to be taken up again.

Nothing was done with the Art Commission bill.

The act to save the trees bordering on the Placerville road, which is to be part of the Lincoln Highway, passed both Houses and when last heard of was in the hands of the Governor for signature.

Mr. Faville stated that he had procured many telegrams and letters from influential people requesting the Governor to sign this bill.

Communications: From Governor Hiram W. Johnson in acknowledgment of the resolution passed at the April meeting; from Wm. H. Gruen, M. A. I. A., regarding a "suggestion for a proposed national license law"; from August G. Headman, Secretary of the Architectural League of the Pacific Coast, relative to the League's Scholarship Fund; from W. C. Hassler, Health Officer, calling attention to a meeting of the Board of Health in reference to a recommended regulation pertaining to State tenement house act; communications and clippings from R. A. Herold referring to the Hall of Justice Building at Sacramento; from Southern California Chapter, asking for funds from this Chapter relative to expense connected with the law of 1872 at the last session of the Legislature; from Arthur T. Loveless answering Secretary's communication in reference to Architectural League matter; from Shea & Lofquist referring to Mr. Herold's charges; from A. R. Walker, Secretary Southern California Chapter, thanking San Francisco Chapter for assurance of financial assistance in the law of 1872 matter; from R. A. Herold regarding Shea & Lofquist and E. C. Hemmings.

Unfinished Business: There was no unfinished business.

New Business: It was decided that as advices had been received that an Institute meeting would be held in San Francisco from October 6 to October 12, 1915, that the Secretary communicate with Mr. Burt L. Fenner, Secretary of the Institute, and Mr. Julian Clarence Levi, Chairman of the Committee on Arrangements, as to a program of the proceedings and entertainment during their stay in San Francisco.

Membership: Mr. Horace G. Simpson having made the necessary application for membership and having been balloted upon, fifty-one ballots were received and counted and Mr. Simpson declared unanimously elected to Chapter membership.

Adjournment: There being no further business before the Chapter, the meeting adjourned at 2 o'clock, subject to the call of the chair.

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SOUTHERN CALIFORNIA CHAPTER, A. I. A.

Minutes of the Eighty-Fifth Meeting of Members, Regular Meeting: The eighty-fifth meeting of the Southern California Chapter of the American Institute of Architects was held at the Hollenbeck Cafe, Los Angeles, on Tuesday, June 8, 1915.

The meeting was called to order at 7:50 p. m. by the President.

The following members were present: D. C. Allison, J. E. Allison, John C. Austin, J. J. Backus, A. B. Benton, Lyman Farwell, R. C. Farrell, Chas. Gordon, Chas. S. Greene, Elmer Grey, John C. Hillman, J. W. Krause, John P. Krempel, A. C. Martin, H. H. Martin, S. B. Marston, B. M. Morris, Octavius Morgan, O. W. Morgan, A. F. Rosenheim, Winsor Soule, August Wackerbarth, Albert R. Walker, Garrett B. Van Pelt, Jr., H. F. Withey, F. R. Schaefer.

As guests of the Chapter were present: Mr. Charles H. Alden, Architect, from Seattle; Mr. Park M. French, of Denver, Colo.; Mr. John W. Mitchell, an Honorary Member of the Chapter; Harry Iles and John Bowler, of the *Builder and Contractor;* W. E. Prine, of the *Southwest Contractor;* G. D. Donald and C. J. Shults.

The regular order of business was set aside for the purpose of listening to a talk by Mr. Elmer Grey. Mr. Grey spoke on a trip made through France and Italy, and the talk was illustrated by stereopticon views. This talk proved to be extremely entertaining and at its conclusion a vote of thanks by resolution adopted was rendered Mr. Grey.

The minutes of the eighty-fourth meeting were next read and approved.

For the Board of Directors the Acting Secretary reported that two meetings had been held since the last Chapter meeting. At the second meeting eleven members had been suspended for non-payment of dues, and the resignation of one accepted.

For the Committee on City Planning, Mr. John C. Austin reported that one meeting had been held by the members of this committee at the City Hall with the committee of the Council; that the committee was endeavoring as far as possible to co-operate with the Councilmanic committee relative to the formation of a city planning commission and other works along similar lines. That it was the intention of the Chapter's committee to carry on this work, offering their services to the Board of Freeholders, under whose guidance a new charter is being prepared.

For the Committee on Contracts and Specifications, report was made that the work of formulating a uniform specification, schedule of unit prices, and standardized list of materials, had been accomplished by the committee and the Electrical Association, and further recommended the endorsement of the Chapter on the work done.